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Abstract

REACTOR SAFETY ANALYSIS AS RELATED TO REACTOR SITING

by

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One of the many techniques employed in reactor safety assessment is to postulate a certain series of hypothetical faults, to study their consequences and in particular to determine whether a fission product release occurs and, if so, of what magnitude.

One such hypothetical accident is sometimes identified as the 'maximum credible' and the consequent fission product release, expressed as a single number, then acquires exaggerated importance and conceals the uncertainties both in the definition and the analysis.

The use of a routine pattern of reactor fault analysis establishes excessive familiarity with such concepts as the 'burst duct accident' and containment which then take on an unjustifiably precise meaning.

The present paper illustrates the inadequacy of this approach, explores the difficulties and suggests the need for maintaining a critical approach to fault analysis and flexibility in guides used for reactor siting and licensing.

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